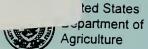
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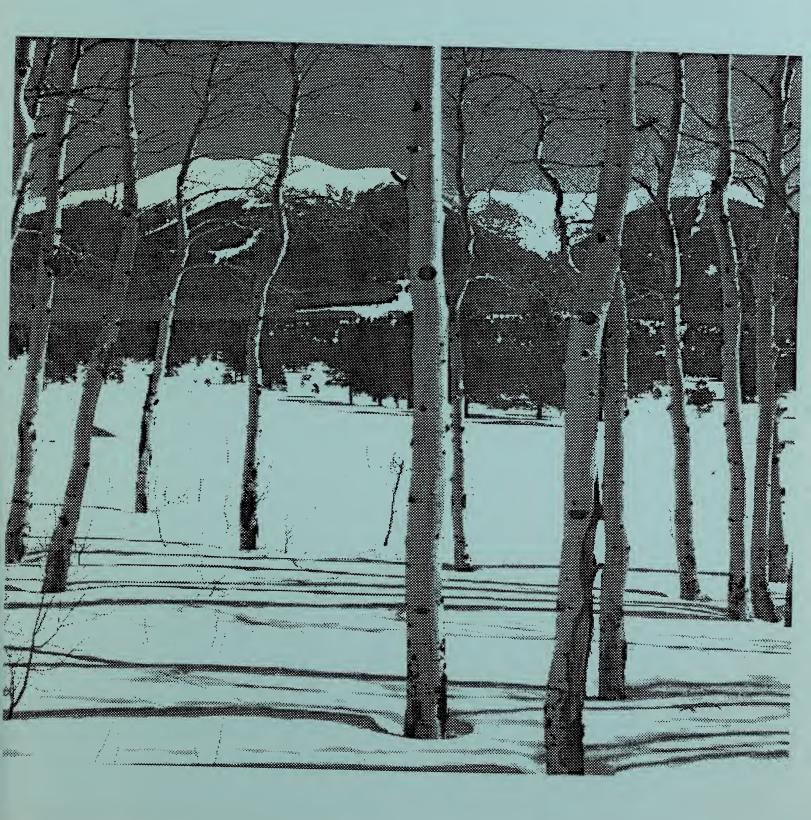
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Natural Resources Conservation Service



Idaho Basin Outlook Report April 1, 1996



Basin Outlook Reports and Federal - State - Private Cooperative Snow Surveys

For more water supply and resource management information, contact:

Your local Natural Resources Conservation Service Office

or

Natural Resources Conservation Service Snow Surveys 3244 Elder Street, Room 124 Boise, ID 83705-4711 (208) 378-5740

How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Natural Resources Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

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IDAHO WATER SUPPLY OUTLOOK REPORT

APRIL 1, 1996

SUMMARY

Abundant water supplies are expected throughout Idaho in 1996. With good carryover storage in most reservoirs and deep mountain snowpacks across the state, nearly all reservoirs are expected to fill. Releases for flood control are currently being made at many reservoirs to maintain adequate storage space for the anticipated runoff. With the winter months behind us, spring temperatures and precipitation will determine the timing and magnitude of the streamflow peaks this year. High flows could occur on many streams. With good water management practices, this year's runoff will also provide good carryover storage for next year.

SNOWPACK

Snowpack percentages decreased slightly from last month in most drainage basins. Snowpacks are currently 80-90% of average in the north and 100-120% across central and southern Idaho. In the Snake River headwaters in western Wyoming, the snowpack remains well above average at 125% of normal. Some SNOTEL sites in Yellowstone National Park are reporting record April 1 snow water content levels. Two Ocean Plateau SNOTEL is 151% of average, the highest since measurements started in 1930. Mid-April is typically the peak of the snow accumulation season, and snow melt can start at any time.

PRECIPITATION

After several months of above average precipitation in northern Idaho, March finally allowed the Panhandle region and Clearwater basin to start drying out. Precipitation was only half of normal in the Panhandle region in March and about three-quarters of normal in the Clearwater basin. The central mountains and Bear River basin received near normal precipitation while the upper Snake and southern Idaho basins received 110-120% of average precipitation. Precipitation for the water year remains above average across the entire state and ranges from 107% of average in the Wood and Lost basins to 137% in the Clearwater basin. Spring precipitation could play a major role in the runoff yield this spring.

RESERVOIRS

Many reservoirs are making flood control releases in anticipation of the heavy runoff projected across the southern two-thirds of the state. Currently, storage in the Payette system is 72% of capacity, 132% of average. The Boise system is 55% of capacity, 87% of average. Magic, Mackay and Little Wood reservoirs are around 80% full. The eight major reservoirs in the upper Snake area are 71% full which is near average for this time of year. In southern Idaho, Oakley, Salmon Falls, and Bear Lake are approximately 45% full while Owyhee Reservoir is 95% full. In northern Idaho, Coeur d'Alene Lake has finally passed the high waters from the February flood event and is currently 60% of capacity. Pend Oreille Lake and Dworshak reservoir are also 60% full. With the exception of Bear Lake, all major reservoirs in the state are expected to fill this year.

Note: NRCS reports reservoir information in terms of usable volumes, which includes both active, inactive, and in some cases dead storage. Other operators may report reservoir contents in different terms. For additional information, see the reservoir definitions in the back of this report.

STREAMFLOW

For the second year in a row, summer streamflows are projected near normal or above for most of the state. Streamflow forecasts call for 80-100% of average in northern Idaho, 100-130% across central Idaho, and 90-110% for southern Idaho. Many streams are currently flowing high because of flood control releases. Streams will continue to be high until the runoff season is over. The potential for high runoff peaks this year exists because of the deep snowpacks. Spring temperatures and precipitation will determine the timing and magnitude of streamflow peaks this year. Residents in flood prone areas should monitor the streams carefully when the runoff season arrives.

RECREATION OUTLOOK

Water based recreational opportunities look promising across all of Idaho this summer. River runners will see plenty of whitewater this year. The desert southwest rivers (Jarbidge, Bruneau and Owyhee rivers) should have an excellent season with both snowpack and streamflows forecasts near or above average. The Salmon River and upper Snake River in eastern Idaho will have an extended season because of the deep snow. Along with the extended season comes the possibility of hazardous high flow conditions: spring temperatures and precipitation will determine the timing and magnitude of streamflow peaks. Many rivers are currently running higher than usual because of reservoir flood control releases. River users should exercise caution during high water: swift velocities, cold water, and bankfull conditions can be hazardous. Many reservoirs may not fill until June due to flood control operations, but they should remain full well into summer.

WATER SUPPLY FORECASTING PRODUCTS ON THE INTERNET

On February 1, the Water and Climate Center (WCC) began providing Snow Survey and Water Supply Forecasting products on the INTERNET. A few of our more popular products (SNOTEL Update Reports, State Basin Outlook Reports, and products previously published in the Water Supply Outlook for the Western United States) are now accessible via our new Home Page and our Anonymous FTP server.

The Universal Resource Locator (URL) for the home page is: http://www.wcc.nrcs.usda.gov/
The address for the Anonymous FTP server is: ftp.wcc.nrcs.usda.gov
You can access the Anonymous FTP server using your INTERNET browser (Netscape, Mosaic, etc.) by changing the URL to: ftp://ftp.wcc.nrcs.usda.gov/

We will continue to add more products to the Home Page and Anonymous FTP server and welcome any comments and suggestions you might have. Questions and comments should be directed to the NRCS Snow Survey and Water Supply Forecasting contact in your state or:

Chris Pacheco (503) 414-3056 al6cpacheco@attmail.com Jim Marron (503) 414-3047 al6jmarron@attmail.com

> Natural Resources Conservation Service Water and Climate Center 101 SW Main Street, Suite 1600 Portland, OR 97204-3224

IDAHO SURFACE WATER SUPPLY INDEX (SWSI) As of April 1, 1996

The surface water supply index (swsi) is predictive indicator of surface water availability within a watershed for the spring and summer water use season. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow. SWSI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry), with a value of zero indicating a median water supply as compared to historical occurrences.

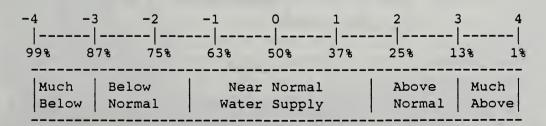
SWSI values are published January through May, and provide a more comprehensive outlook of water availability than either streamflow forecasts or reservoir storage figures alone. The SWSI index allows comparison of water availability between basins for drought or flood severity analysis. Threshold SWSI values have been established for most basins to indicate the potential for agricultural water shortages.

The following agencies and cooperators provide assistance in the preparation of the Surface Water Supply Index for Idaho:

US Department of Commerce, National Weather Service US Bureau of Reclamation Idaho Water Users Association US Army Corps of Engineers Idaho Department of Water Recourses PacifiCorp

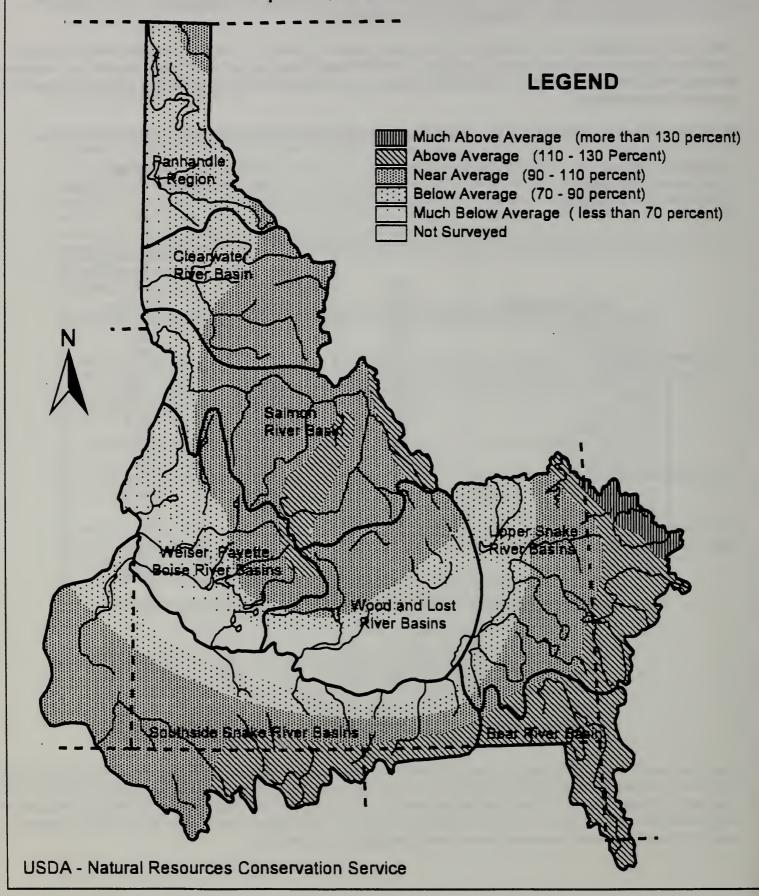
BASIN or REGION	SWSI Value	Most Recent Year With Similar SWSI Value	Agricultural Water Supply Shortage May Occur When SWSI is Less Than
PANHANDLE	-2.0	1983	NA
CLEARWATER	- 0.3	1991	NA NA
SALMON	1.7	1986	NA
WEISER	1.1	1976	NA
PAYETTE	2.8	1984	NA
BOISE	1.8	1986	-2.6
BIG WOOD	1.4	1972	-1.4
LITTLE WOOD	0.9	1993	-2.1
BIG LOST	1.4	1980	-0.8
LITTLE LOST	1.3	1993	0.0
HENRYS FORK	1.9	1993	-3.3
SNAKE (AMERICAN FALLS)	2.7	1982	-2.0
OAKLEY	1.6	1979	0.0
SALMON FALLS	2.2	1982	0.0
BRUNEAU	2.5	1982	NA
OWYHEE	1.1	1993	NA
BEAR RIVER	-2.2	1989	-3.8

SWSI SCALE, PERCENT CHANCE OF EXCEEDANCE, AND INTERPRETATION

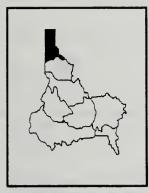


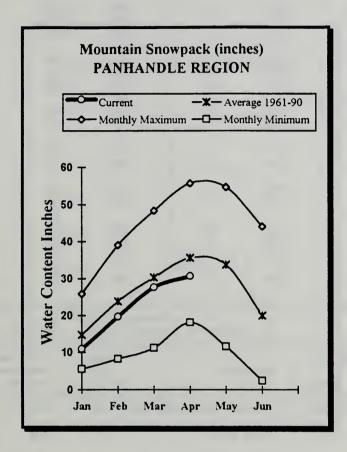
Note: The Percent Chance of Exceedance is an indicator of how often a range of SWSI values might be expected to occur. Each SWSI unit represents about 12% of the historical occurrences. As an example of interpreting the above scale, the SWSI can be expected to be greater than -3.0, 87% of the time and less than -3.0, 13% of the time. Half the time, the SWSI will be below and half the time above a value of zero. The interval between -1.5 and +1.5 described as "Near Normal Water Supply", represents three SWSI units and would be expected to occur about one third (36%) of the time.

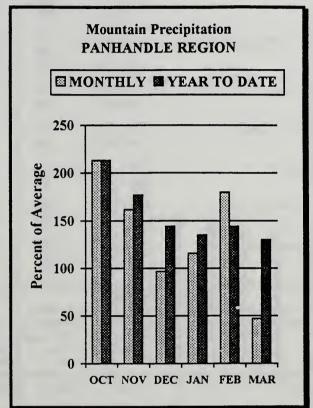
Idaho Mountain Snowpack April 1, 1996



PANHANDLE REGION APRIL 1, 1996







WATER SUPPLY OUTLOOK

After five straight months of heavy precipitation, less than half of the normal moisture fell during March. Stream levels have also dropped, providing some relief from the flooding experienced in February. Water year to date precipitation is still well above normal, however, at 130% of average. Snowpacks decreased slightly from last month and are now 86% of average for the Panhandle Region as a whole. The Couer d'Alene basin reports 69% of average snowpack while the St. Joe basin is 81%. Couer d'Alene Lake has finally been drafted following the February flood event and is currently below its normal summer level. Streamflow forecasts have decreased slightly from last month. Current forecasts call for 78% of average for the Couer d'Alene River while the St. Joe River is forecast at 90% of average. Forecasts for the Montana rivers call for 100-115% of average runoff. The potential for high streamflows still exists for many north Idaho rivers. Residents in flood prone areas -- especially where dikes and other protective structures were damaged in the February flood event -- should monitor the situation closely over the next couple of months.

PANHANDLE REGION

Streamflow Forecasts - April 1, 1996

		<<=====	= Drier ====	== Future Co	onditions =	===== Wetter	====>>	
Forecast Point	Forecast Period	90% (1000AF)	70% (1000AF)	50% (Most	•	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
KOOTENAI at Leonia (1,2)	APR - JUN	5395	6155	6500	114	6845	7605	5701
	APR - JUL	6865	7 8 11	8240	115	8669	961 5	7199
	APR - SEP	7890	8977	9470	114	9963	11050	8275
CLARK FK at Whitehorse Rpds (1,2)	APR-JUN	8195	9608	10250	102	10892	12305	10050
	APR-JUL	9590	11247	12000	102	12753	14410	11 73 0
	APR-SEP	10548	12372	13200	102	14028	15852	12910
PEND OREILLE Lake Inflow (1,2)	APR-JUN	9565	11288	12070	106	12852	145 75	11390
	APR-JUL	11248	13072	13900	106	14728	16552	13150
	APR-SEP	12298	14294	15200	106	16106	18102	14370
PRIEST nr Priest River (1,2)	APR-JUL	628	770	835	103	900	1042	814
	APR-SEP	669	821	8 90	103	959	1111	86 8
COEUR D'ALENE at Enaville	APR-JUL	462	544	600	78	656	738	770
	APR-SEP	388	572	630	78	688	874	8 09
ST.JOE at Calder	APR-JUL	878	980	1050	90	1120	1222	1169
	APR-SEP	937	1043	1115	90	1187	1293	1237
SPOKANE near Post Falls (2)	APR-JUL	1789	2052	2230	85	2408	2671	2633
	APR-SEP	1848	2117	2300	84	2483	2752	2 73 0
SPOKANE at Long Lake	APR-JUL	2028	2318	2515	86	2712	3002	2936
	APR-SEP	2195	2496	2700	86	2904	3205	3159
				 ===========	.========	 ============	========	========

	PANHANDLE REGION Reservoir Storage (1000 AF) - End	of March			PANHANDLE REGION Watershed Snowpack Analysis - April 1, 1996				
Reservoir	Usable Capacity	*** Usa This Year	able Storaç Last Year	ge *** Avg	Watershed	Number of Data Sites	This Year as % of		

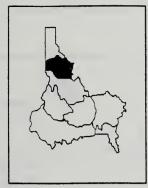
Reservoir	Capacity	This Year	Last Year	Avg	Watershed	of Data Sites	Last Yr	Average
HUNGRY HORSE	3451.0	1893.0	1863.0	2046.0	Kootenai ab Bonners F	erry 35	115	98
FLATHEAD LAKE	1791.0	1105.0	656.4	751.9	Moyie River	3	128	101
NOXON RAPIDS		NO REPO	ORT		Priest River	4	80	71
PEND OREILLE	1561.3	908.0	989.0	813.7	Pend Oreille River	103	122	98
COEUR D'ALENE	238.5	141.7	201.5	170.1	Rathdrum Creek	4	57	48
PRIEST LAKE	119.3	65.1	84.0	61.2	Hayden Lake	2	74	48
					Coeur d'Alene River	10	100	70
					St. Joe River	6	110	81
					Spokane River	19	94	70
				4	Palouse River	2	83	58

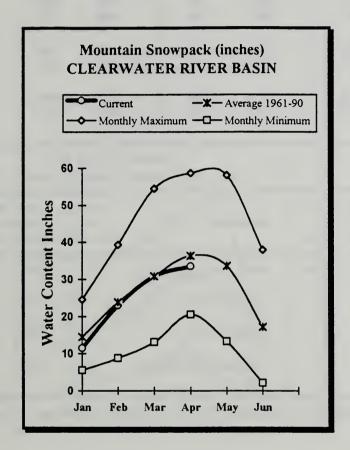
[|] * 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

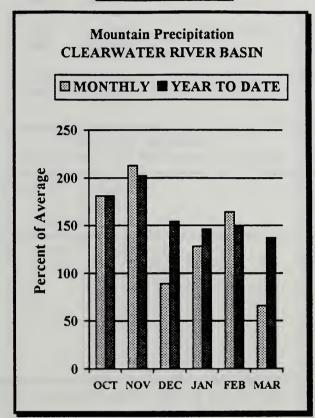
^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural flow - actual flow may be affected by upstream water management.

CLEARWATER RIVER BASIN APRIL 1, 1996







WATER SUPPLY OUTLOOK

March was the driest month so far this water year, with the Clearwater basin receiving only 66% of normal precipitation. Even so, the Clearwater basin still reports the highest precipitation in the state -- 137% of average for the water year. As a result of the dry conditions, snowpack levels have dropped about ten percentage points from last month and are currently 92% of average for the basin. Dworshak Reservoir storage is currently near average for this time of year at 59% of capacity. Streamflow forecasts call for just about normal runoff this spring. The potential for high streamflows still exists for many north Idaho rivers. Residents in flood prone areas -- especially where dikes and other protective structures were damaged in the February flood event -- should monitor the situation closely over the next couple of months.

CLEARWATER RIVER BASIN Streamflow Forecasts - April 1, 1996

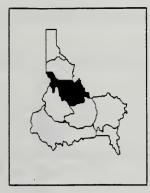
		**====	Drier ====	== Future Co	onditions ===	===== Wetter	r ====>> 	
Forecast Point	Forecast	=======	,=======	== Chance Of E	exceeding * =		,======	
	Period	90% (1000AF)	70% (1000AF)	50% (Most (1000AF)	Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
DWORSHAK RESV INFLOW (2)	APR-JUL	2181	2514	2660	99	2806	3257	2692
	APR-SEP	2447	2675	2830	99 .	2985	3213	2866
CLEARWATER at Orofino (1)	APR-JUL	3131	4004	4400	93	4796	5669	4718
	APR-SEP	3369	4291	4710	95	5129	6051	4976
CLEARWATER at Spalding (1,2)	APR-JUL	5312	6535	7090	93	7645	8868	7618
	APR-SEP	5748	7042	7630	95	8218	9512	8052

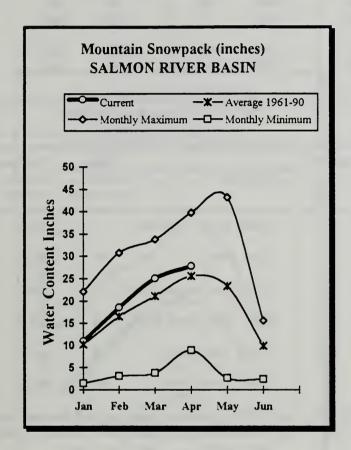
Reservoir Sto	rage (1000 AF) - End	of Marc	h 		Watershed Snowpac	k Analysis -	April 1,	1996
Reservoir	Usable Capacity 			Watershed	Number of Data Sites	This Year as % of		
DWORSHAK	3 45 9. 0	2027.0	3065.6	1996.2	North Fork Clearwater	13	114	88
					Lochsa River	3	141	99
					Selway River	5	143	102
					Clearwater Basin Total	. 21	120	91

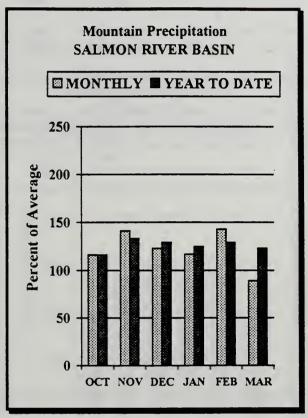
^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

- (1) The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) The value is natural flow actual flow may be affected by upstream water management.

SALMON RIVER BASIN APRIL 1, 1996







WATER SUPPLY OUTLOOK

Precipitation was above average for the first five months of the water year in the Salmon basin. March ended this trend, however, with 89% of average precipitation for the month. Precipitation for the water year to date still remains well above average at 123%. The mountain snowpack ranges from 92% of average for the Little Salmon basin to 116% for the Salmon basin above Salmon. Overall, the snowpack in the Salmon basin is 109% of average. Streamflow forecasts call for 115% of average for the Salmon River at Salmon and 111% for the Salmon River at White Bird. River runners can expect an extended boating season with the potential for high streamflows as a result of the above average snow conditions. Water supplies should be abundant in the Salmon basin this year for all uses.

SALMON RIVER BASIN Streamflow Forecasts - April 1, 1996

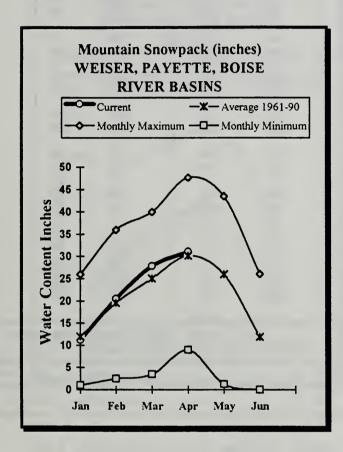
		Streamflow	Forecasts	s - Ap	ril 1, 19	196				
Forecast Point	 Forecast Period	İ		=== Cha 50 (ance Of E 0% (Most (1000AF)	Exceeding * ===== Probable) (% AVG.)		10:	====	30-Yr Avg. (1000AF)
SALMON at Salmon (1)	APR - JUL APR - SEP	689 807	903 1057		1000 1170	115 115	1097 1283	13 15:		869 1019
SALMON at White Bird (1)	APR-JUL APR-SEP	5200 5769	6156 6829		6590 7310	111	7024 7791	798 88		5956 6602
SALI Reservoir Storage		=========	======================================	***	 	SALM SALM Watershed Snowp	ON RIVER ack Analy	ysis -		, 1996
Reservoir	Capacity		Last	Avg	Water	rshed	of Data S	•	Last Y	r Average
				12000	Salmo	on River ab Salm	ies====== ion 11	1	105	118
					Lemhi	i River	10)	101	109
					 Middl	le Fork Salmon R	iver :	3	108	117
					South	n Fork Salmon Ri	ver :	3	99	106
					Littl	le Salmon River		4	89	92
					 Salmo	on Basin Total	32	2	106	110

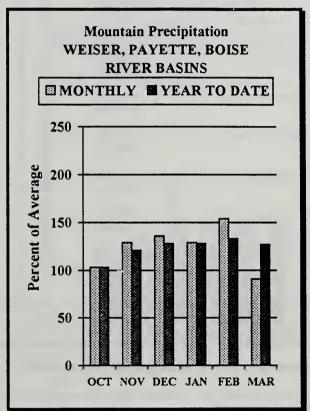
^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

- (1) The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) The value is natural flow actual flow may be affected by upstream water management.

WEISER, PAYETTE, BOISE RIVER BASINS APRIL 1, 1996







WATER SUPPLY OUTLOOK

March precipitation was slightly below normal in the west central mountains (91%) -- the first month with less than normal precipitation this water year. Precipitation for the water year stands at 127%. Snowpack percentages remain about the same as reported last month. Currently, the snowpack is 106% of average in the Payette basin and 100% in the Boise basin. Continuing a trend established earlier this water year, the high elevations continue to report the best snowpack conditions. Graham Guard Station SNOTEL, elevation 5,690 feet, is 73% of average while Vienna Mine, elevation 8,960 feet, reports 120% of average. Storage in the Boise reservoir system is currently 87% of average (55% of capacity) while the Payette system reports 132% of average storage (72% of capacity). Flood control operations are in effect for both the Boise and Payette basins. Streamflow forecasts have decreased slightly from last month but still call for well above normal runoff. The Boise River near Boise is expected to yield 130% of normal runoff; the Payette near Horseshoe Bend is forecast at 129%. Heavy snowpacks and above normal runoff forecasts promise high water extending late into the spring and summer this year. Water supplies will be more than adequate in the west central mountains this year.

WEISER, PAYETTE, BOISE RIVER BASINS Streamflow Forecasts - April 1, 1996

Forecast Point	Forecast Period		70% (1000AF)	50% (Most	xceeding * =	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
WEISER nr Weiser (1)	APR-JUL	285	405	460	119	515	635	386
	APR-SEP	3 03	4 3 2	490	118	548	677	415
SF PAYETTE at Lowman	APR-JUL	500	5 3 6	560	130	584	620	432
	APR-SEP	559	600	627	129	654	695	488
DEADWOOD RESERVOIR Inflow (1,2)	APR-JUL	147	166	173	128	180	197	135
	APR-SEP	161	178	185	129	1 92	209	143
NF PAYETTE nr Cascade (1,2)	APR-JUL	504	584	620	125	656	736	496
	APR-SEP	534	621	660	124	699	786	5 33
NF PAYETTE nr Banks (2)	APR-JUL	68 3	7 5 9	810	125	861	9 3 7	648
	APR-SEP	727	810	866	126	922	1005	690
PAYETTE nr Horseshoe Bend (1,2)	APR-JUL	1787	1995	2 0 90	129	2185	2 393	1618
	APR-SEP	1915	2146	2250	128	2 3 54	2585	1 <i>7</i> 55
BOISE near Twin Springs (1,2)	APR-JUL	697	778	815	129	852	9 33	631
	APR-SEP	763	847	885	129	92 3	1007	686
SF BOISE at Anderson Rnch Dm (1,2)	APR-JUL	597	664	695	128	726	79 3	544
	APR-SEP	642	716	750	129	784	8 58	582
MORES CK nr Arrowrock Dam	APR-JUL	142	153	160	124	167	178	129
	APR-SEP	148	159	166	124	173	184	134
BOISE nr Boise (1,2)	APR-JUN	1466	1592	1650	131	1708	1 83 4	1264
	APR-JUL	1610	1775	1850	130	1925	2090	1421
	APR-SEP	1743	1920	2000	130	2080	2257	1535

WEISER, PAYETTE, BOISE RIVER BASINS Reservoir Storage (1000 AF) - End of March WEISER, PAYETTE, BOISE RIVER BASINS Watershed Snowpack Analysis - April 1, 1996

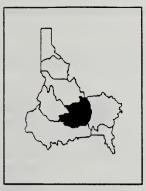
Reservoir	Usable Capacity	*** Usa This	ble Stora Last	ge ***	Watershed	Number of		ar as % of
		Year	Year	Avg		Data Sites	Last Yr	Average
MANN CREEK	11.1	10.6	10.4	8.7	Mann Creek	2	72	72
CASCADE	703.2	500.6	497.5	377.6	Weiser River	5	74	78
DEADWOOD	161.9	119.3	65.7	90.8	North Fork Payette	8	88	93
ANDERSON RANCH	464.2	324.0	111.3	278.1	South Fork Payette	5	101	103
ARROWROCK	286.6	125.9	237.3	227.8	Payette Basin Total	13	93	97
LUCKY PEAK	293.2	124.2	189.6	153.2	Middle & North Fork Boi	se 7	97	106
LAKE LOWELL (DEER FLAT)	177.1	140.0	103.0	152.9	South Fork Boise River	9	97	106
					Mores Creek	3	89	88
					Boise Basin Total	15	96	100
					Canyon Creek	2	117	58
				-				

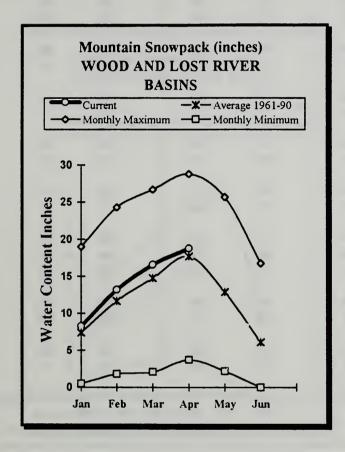
^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

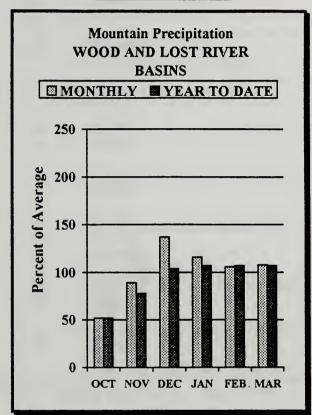
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^{(2) -} The value is natural flow - actual flow may be affected by upstream water management.

WOOD and LOST RIVER BASINS APRIL 1, 1996







WATER SUPPLY OUTLOOK

March precipitation in the Wood and Lost basins was slightly above normal (108% of average), bringing the total for the water year to 107%. Snowpack percentages decreased slightly throughout the basin since last month. Currently, the Big Wood basin reports 112% of average snowpack, while the Little Wood basin reports 99% of average. The Big and Little Lost basins are both reporting near normal snowpack conditions. Reservoir storage is above average in Magic, Mackay and Little Wood reservoirs. Flood control releases are being made from Magic Reservoir; current storage is 162,700 acre-feet (85% of capacity). Streamflow forecasts call for 103% of average for Magic Reservoir inflow. Mackay Reservoir is currently storing 37,400 acre-feet with only 7,000 acre-feet left to fill. The inflow to Mackay is forecast at 159,000 acre-feet for the April-July period, slightly above average. Water supplies will be adequate for all water users in the Wood and Lost River basins this year.

WOOD AND LOST RIVER BASINS

Streamflow Forecasts - April 1, 1996

Forecast Point	Forecast			== Future Co == Chance Of E			r ====>> -=======	
	Period	90% (1000AF)	70% (1000AF)	50% (Most (1000AF)		30% (1000AF)	10% (1000AF)	30-Yr Avg
======================================	APR-JUL	216	253	270	106	288	330	255
	APR-SEP	208	285	305	106	325	405	289
BIG WOOD near Bellevue	APR-JUL	139	164	182	100	201	230	183
	APR-SEP	150	176	195	99	215	246	19
CAMAS CREEK near Blaine	APR-JUL	71	82	90	88	98	111	10
	APR-SEP	73	84	92	89	100	113	10
BIG WOOD blw Magic Dam (2)	APR-JUL	256	284	304	103	324	352	29
	APR-SEP	269	299	320	103	341	371	31
LITTLE WOOD nr Carey	APR-JUL	75	86	94	102	102	113	9
	APR-SEP	70	92	101	102	110	131	9
BIG LOST at Howell	APR-JUN	110	130	144	102	158	178	14
	APR-JUL	141	168	186	103	204	231	18
	APR-SEP	164	194	215	104	. 236	266	20
BIG LOST blw Mackay Reservoir (2)	APR-JUL	127	146	159	106	172	191	15
	APR-SEP	160	180	194	107	208	228	18
LITTLE LOST blw Wet Creek	APR-JUL	28	32	35	112	38	42	:
	APR-SEP	34	40	j 44	113 j	48	54	

WOOD AND LOST RIVER BASINS | WOOD AND LOST RIVER BASINS | Wood Analysis - April 1, 1996

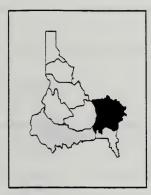
Page and in	Usable		ole Stora	ge ***	llan anhad	Number	This Yea	ar as % of
Reservoir	Capacity	This Year	Last Year	Avg	Watershed	of Data Sites	Last Yr	Average
MAGIC	191.5	162.7	77.8	117.4	Big Wood ab Magic	8	82	109
LITTLE WOOD	30.0	22.3	20.4	18.4	Camas Creek	5	98	91
MACKAY	44.4	37.4	24.2	33.3	Big Wood Basin Total	13	85	104
					Little Wood River	4	74	99
				į	Fish Creek	3	67	73
					Big Lost River	7	73	102
					Little Lost River	4	91	104

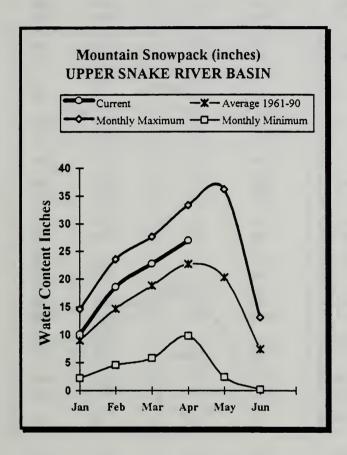
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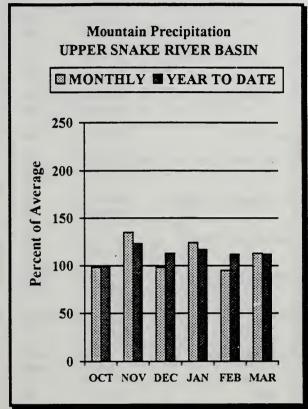
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UPPER SNAKE RIVER BASIN APRIL 1, 1996







WATER SUPPLY OUTLOOK

The Snake River headwaters continue to report the highest snowpacks in the region -- 126% of average for the Snake above Jackson Lake. March precipitation was above average, helping to maintain the above average mountain snowpacks. Precipitation for the water year is 112% of average. Two Ocean Plateau SNOTEL site, in Yellowstone National Park, is reporting 40.6 inches of snow water, 151% of average. This is the highest April 1 value since measurements started in 1930! Even the lower elevation Willow, Blackfoot and Portneuf basins are reporting above average snowpacks. Reservoir storage for the eight major reservoirs in the region is 71% of capacity, 94% of average. Streamflow forecasts for the Snake River tributaries above Palisades Reservoir call for 120-125% of average runoff for the April-July period. The Henrys Fork is forecast at 116% of average. Flood control releases are currently being made from Palisades and American Falls Reservoirs to make room for the expected runoff. High flows should be expected well into the spring and early summer. Water supplies will be abundant for all uses in the Snake River basin this year.

UPPER SNAKE RIVER BASIN

Streamflow Forecasts - April 1, 1996

		<<====	Drier ====	== Future Co	nditions =	===== Wetter	====>>	
Forecast Point	Forecast Period	90%	70%	= Chance Of E 50% (Most		======================================	10%	30-Yr Avg.
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)
HENRYS FORK or Ashton (2)	APR-JUL	529	577	610	112	643	691	544
	APR-SEP	706	762	800	110	838	894	730
HENRYS FORK nr Rexburg (2)	APR-JUL	1263	1362 1705	1430 1780	116 115	1498 1855	1597 1965	1228
	APR-SEP	1595	1705	1780	113	1655	1900	1551
FALLS RIVER nr Squirrel (1,2)	APR-JUL	337	373	390	107	407	443	364
	APR-SEP	399	441	460	107	479	521	432
TETON abv S Leigh Ck nr Driggs	APR-JUL	143	163	176	115	189	209	153
	APR-SEP	190	214	230	116	246	270	199
TETON nr St. Anthony (2)	APR-JUL	407	451	480	128	509	553	375
	APR-SEP	489	537	570	126	603	651	454
SNAKE nr Moran (1,2)	APR-SEP	940	1043	1090	125	1137	1240	869
SNAKE R abv Palisades Rsvr nr Alpine	APR-JUL	2485	2708	2860	125	3012	3235	2286
	APR-SEP	2836	3118	3310	125	3502	3784	2647
GREYS R abv Palisades Reservoir	APR-JUL	345	381	405	122	429	465	333
	APR-SEP	397	437	465	120	493	533	388
SALT abv Reservoir nr Etna	APR-JUL	315	367	403	126	439	491	320
	APR-SEP	396	455	495	124	535	594	400
PALISADES RESV INFLOW (1,2)	APR-JUL	3400	3820	4010	124	4200	4620	3225
	APR-SEP	3974	4460	4680	124	4900	5386	3762
SNAKE nr Heise (2)	APR-JUL	3 913	4227	4440	129	4653	4967	3451
	APR-SEP	4543	4917	5170	128	5423	5797	4048
SNAKE nr Blackfoot (1,2)	APR-JUL	4673	5338	5640	127	5942	6607	4444
	APR-SEP	5892	6626	6960	127	7294	8028	5482
PORTNEUF at Topaz	APR-JUL	58	66	72	100	78	87	72
	APR-SEP	77	86	93	100	100	109	93
AMERICAN FALLS RESV INFLOW (1,2)	APR-JUL	2852	3593	3930	128	4267	5008	3066
	APR-SEP	2955	3832	4230	128	4628	5505	3303

Reservoir	Usable Capacity	*** Usa This	ble Stora	age ***	Watershed	Number of	This Yea	r as % of
	1	Year	Year	Avg		Data Sites	Last Yr	Average
HENRYS LAKE	90.4	83.5	80.5	80.1	Camas-Beaver Creeks	4	65	81
ISLAND PARK	135.2	116.5	105.5	119.3	Henrys Fork River	12	87	108
GRASSY LAKE	15.2	13.4	13.0	11.2	Teton River	7	99	108
JACKSON LAKE	847.0	6 3 0.8	422.0	473.2	Snake above Jackson Lak	ce 11	116	125
PALISADES	1400.0	683.0	618.6	1013.5	Gros Ventre River	3	128	121
RIRIE	80.5	51.6	33.0	44.3	Hoback River	6	148	121
BLACKFOOT	348.7	241.7	130.8	260.7	Greys River	5	131	117

1452.5

Salt River

Willow Creek

Blackfoot River

Portneuf River

Snake above Palisades

Snake abv American Falls 45

UPPER SNAKE RIVER BASIN

Watershed Snowpack Analysis - April 1, 1996

30

7

5

126

107

110

122

123

123

102

89

109

117

1672.6 1424.2 1592.6

UPPER SNAKE RIVER BASIN

Reservoir Storage (1000 AF) - End of March

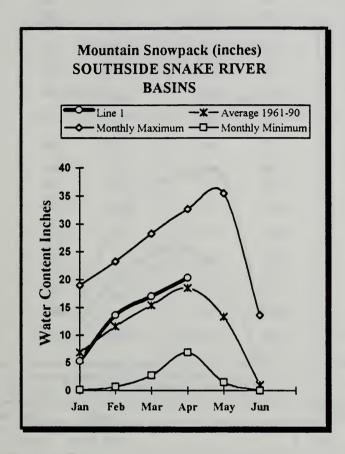
AMERICAN FALLS

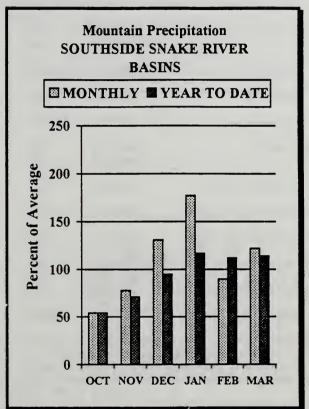
^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table. The average is computed for the 1961-1990 base period.

^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.(2) - The value is natural flow - actual flow may be affected by upstream water management.

SOUTHSIDE SNAKE RIVER BASINS APRIL 1, 1996







WATER SUPPLY OUTLOOK

March precipitation was above normal across the high desert basins south of the Snake River, bringing the total precipitation for the water year to 114% of average. Snowpacks in this area range from 105% of average in the Owyhee basin to 124% in the Bruneau basin. Usually, low elevation snow measuring stations in the Owyhee basin start melting in March. This year, however, some lower elevation SNOTEL sites are reporting well above average snowpacks; higher elevation sites are still reporting near normal conditions. This indicates the potential for rapid rises in streams if warm temperatures or rain occur suddenly. Reservoir storage is near or above average for Oakley, Salmon Falls and Owyhee reservoirs. Streamflow forecasts call for 90-120 % of average runoff in this region. Streamflows through the middle Snake River will be plentiful this spring and summer because of the flood control releases and deep snowpacks. River running opportunities look promising for the Bruneau, Jarbidge and Owyhee rivers with a good potential for high flows in these rivers. Water supplies should be adequate south of the Snake River for all users this year.

SOUTHSIDE SNAKE RIVER BASINS Streamflow Forecasts - April 1, 1996

=======================================		 	Drier ====	== Future Co	nditions ==	===== Wetter	=====>>	
Forecast Point	Forecast	=======	========	= Chance Of E	xceeding * =			
	Period	90%	70%	50% (Most		30%	10%	30-Yr Avg.
		(1000AF)	(1000AF)	(1000AF)		(1000AF)	(1000AF)	(1000AF)
OAKLEY RESERVOIR Inflow (2)	APR-JUL	18.8	26	30	103	35	41	29
THE THE SERVICE AND THE SERVIC	APR-SEP	19.9	27	32	100	37	44	32
SALMON FALLS CREEK nr San Jacinto	APR-JUN	43	56	65	87	75	92	75
	APR-JUL	45	59	69	87	80	98	80
	APR-SEP	50	64	74	88	85	103	84
BRUNEAU nr Hot Spring	APR-JUL	187	225	250	120	275	313	209
	APR-SEP	198	238	265	120	292	332	221
OWYHEE nr Gold Ck (2)	APR-JUL	16.2	23	28	100	33	40	28
DWYHEE nr Owyhee (2)	APR-JUL	55	76	90	104	103	124	86
OWYHEE near Rome	APR-JUL	257	330	385	102	444	539	377
OWYHEE RESV INFLOW	APR-JUL	333	409	465	119	525	619	390
	APR-SEP	365	443	500	120	561	656	418
SUCCOR CK nr Jordan Valley	APR-JUL	4.02	7.82	10.40	108	12.98	16.78	9.60
SNAKE RIVER at King Hill (2)	APR-JUL	2114		3070	106		4025	2896
SNAKE RIVER near Murphy (2)	APR-JUL	2205		3220	108		4202	2980
SNAKE RIVER at Weiser (2)	APR-JUL	4645		6370	117		8143	5465
NAKE RIVER at Hells Canyon Dam	APR-JUL	4964		6880	112		8826	6129
SNAKE blw Lower Granite Dam (1,2)	APR-JUL	16984	20365	21900	101	23435	26816	21650

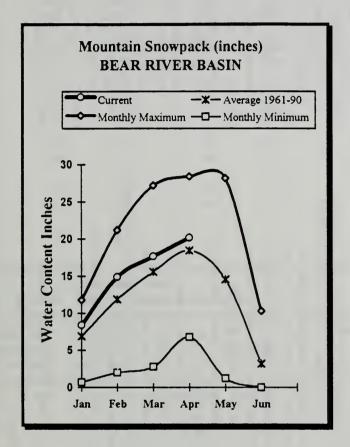
	DE SNAKE RIVER BAS e (1000 AF) - End		1		SOUTHSIDE Watershed Snowpa	SNAKE RIVER B ck Analysis -		1996
Reservoir	Usable Capacity	*** Usa This Year	able Stora Last Year	ge ***	Watershed	Number of Data Sites	This Yea	r as % of Average
OAKLEY	77.4	34.8	19.3	34.0	Raft River	5	136	119
SALMON FALLS	182.6	76.8	38.6	62.3	Goose-Trapper Creeks	6	149	116
WILDHORSE RESERVOIR	71.5	48.4	28.8	38.2	Salmon Falls Creek	6	144	111
OWYHEE	715.0	677.0	483.1	579.0	Bruneau River	8	164	124
BROWNLEE	1419.3	918.3	1268.7	893.1	Owyhee Basin Total	13	125	105

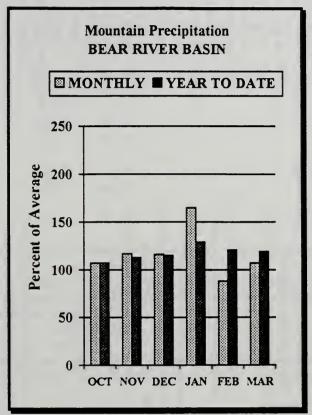
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BEAR RIVER BASIN APRIL 1, 1996







WATER SUPPLY OUTLOOK

March provided near normal precipitation to the Bear River basin, bringing the total for the water year to 119% of average. Snowpacks range from 104% of average in the Mink Creek basin to 124% for the Bear River basin above the WY-ID line. Montpelier Creek Reservoir is storing 2900 acre-feet of water, almost twice its normal storage for this time of year. Storage in Bear Lake is improving and is currently 658,500 acre-feet, almost twice last year's level at this time. Bear Lake is currently about two-thirds of average storage and half of its total capacity. Streamflow forecasts call for near normal runoff or better throughout the basin. The Smiths Fork near Border, Wyoming is forecast at 123% of average; Montpelier Creek is forecast at 100% of average, and the Bear River below Stewart Dam is forecast at 118% of average. Water supplies will be adequate this year in the Bear River basin, and good water management practices should help to increase storage in Bear Lake for next year.

BEAR RIVER BASIN Streamflow Forecasts - April 1, 1996

<<===== Drier ===== Future Conditions ====== Wetter ====>> Forecast Point Forecast Period 90% 70% 50% (Most Probable) 30% 10% 30-Yr Avg. (1000AF) (1000AF) (1000AF) (1000AF) (1000AF) (% AVG.) (1000AF) 90 BEAR R nr Randolph, UT APR-JUL 129 155 131 181 220 APR-SEP 95 139 197 168 132 241 127 102 SMITHS FORK or Border, WY APR-JUL 116 125 123 134 148 102 APR-SEP 119 134 145 123 156 171 118 27 40 THOMAS FK nr WY-ID State Line APR-JUL 20 33 100 53 33 30 43 57 APR-SEP 36 100 36 248 303 340 377 432 BEAR R blw Stewart Dam nr Montpelier APR-JUL 118 288 280 342 385 428 490 APR-SEP 118 327 MONTPELIER CK nr Montpelier (2) APR-JUL 8.3 10.5 12.2 100 14.2 17.8 12.2 10.8 13.3 APR-SEP 15.3 108 17.6 22 14.2 42 47 55 47 51 109 CUB R nr Preston APR-JUL 60

	e (1000 AF) - End	of March			Watershed Snowpac	k Analysis -	April 1,	1 99 6
Reservoir	Usable Capacity	*** Usablo This Year	e Storag Last Year	e *** Avg	Watershed	Number of Data Sites		r as % of ======= Average
WOODRUFF NARROWS	57.3	53.0	28.5		Smiths & Thomas Forks	3	124	115
WOODRUFF CREEK	4.0	4.0	4.0		Bear River ab WY-ID li	ne 10	127	124
BEAR LAKE	1421.0	658.5	385.3	1002.1	Montpelier Creek	2	129	114
MONTPELIER CREEK	4.0	2.9	1.5	1.6	Mink Creek	4	115	104
				ļ	Cub River	3	122	112
					Bear River ab ID-UT li	ne 22	124	116
,					Malad River	3	145	110

^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural flow - actual flow may be affected by upstream water management.

Streamflow Adjustment List For All Forecasts Published In Idaho Basin Outlook Report

Streamflow forecasts are projections of runoff volumes that would have occurred naturelly without influencas from upstream reservoirs or diversions. Thas a values are referred to as natural or adjusted flows. To make these adjustments, changes in reservoir storage, diversions, and intarbasin transfars are added or subtracted from the observed (actual) atreamflow volumes. The following list documents the adjustments made to each forecast point in this report.

Panhandle River Basins

KOOTENAI R AT LEONIA, ID

- + LAKE KOOCANUSA (STORAGE CHANGE) CLARK FORK R AT WHITEHORSE RAPIDS, ID
- + HUNGRY HORSE (STORAGE CHANGE)
- + FLATHEAD LAKE (STORAGE CHANGE)
- + NOXON RAPIDS RESV (STORAGE CHANGE) PEND OREILLE LAKE INFLOW, ID
- + PEND OREILLE R AT NEWPORT, WA
- + HUNGRY HORSE (STORAGE CHANGE)
- + FLATHEAD LAKE (STORAGE CHANGE)
- + NOXON RAPIDS (STORAGE CHANGE
- + PEND OREILLE LAKE (STORAGE CHANGE) PRIEST R NR PRIEST R, ID
 - + PRIEST LAKE (STORAGE CHANGE)
- COEUR D'ALENE R AT ENAVILLE, ID No Corrections ST. JOE R AT CALDER, ID - No Corrections SPOKANE R NR POST FALLS, ID
 - + COEUR D'ALENE LAKE (STORAGE CHANGE) SPOKANE R AT LONG LAKE, ID
- + COEUR D'ALENE LAKE (STORAGE CHANGE)

Clearwater River Basin

CLEARWATER R AT OROFINO, ID - No Corrections DWORSHAK RESERVOIR INFLOW, ID

- + CLEARWATER R NR PECK, ID
- + DWORSHAK RESV (STORAGE CHANGE)
- · CLEARWATER R AT OROFINO, ID

CLEARWATER R AT SPALDING, ID

+ DWORSHAK RESV (STORAGE CHANGE)

Salmon River Basin

SALMON R AT WHITE BIRD, ID - No Corrections SALMON R AT SALMON, ID - No Corrections

Weiser, Payette, Boise River Basins

SF PAYETTE R AT LOWMAN, ID - No Corrections WEISER R NR WEISER, ID - No Corrections DEADWOOD RESERVOIR INFLOW, ID

- + DEADWOOD R BLW DEADWOOD RESV NR LOWMAN
- + DEADWOOD RESV (STORAGE CHANGE) NF PAYETTE R AT CASCADE, ID
- + CASCADE RESV (STORAGE CHANGE) NF PAYETTE R NR BANKS, ID
- + CASCADE RESV (STORAGE CHANGE)
- PAYETTE R NR HORSESHOE BEND, ID
- + DEADWOOD RESV (STORAGE CHANGE)
- BOISE R NR TWIN SPRINGS, ID No Corrections SF BOISE R AT ANDERSON RANCH DAM, ID + CASCADE RESV (STORAGE CHANGE)
- MORES CK NR ARROWROCK DAM, ID No Corractions + ANDERSON RANCH RESV (STORAGE CHANGE) BOISE R NR BOISE, ID
- + ANDERSON RANCH RESV (STORAGE CHANGE)
- + ARROWROCK RESV (STORAGE CHANGE)
- + LUCKY PEAK RESV (STORAGE CHANGE)

Wood and Lost River Basins

BIG WOOD R BLW MAGIC DAM NR RICHFIELD, ID BIG WOOD R NR BELLEVUE, ID - No Corrections BIG WOOD R AT HAILEY, ID - No Corrections CAMAS CK NR BLAINE, ID - No Corrections

- + MAGIC RESV (STORAGE CHANGE)
- BIG LOST R AT HOWELL RANCH NR CHILLY, ID No + LITTLE WOOD RESV (STORAGE CHANGE) LITTLE WOOD R NR CAREY, ID
- BIG LOST R BLW MACKAY RESV NR MACKAY, ID
- LITTLE LOST R BLW WET CK NR HOWE, ID No Corractions + MACKAY RESV (STORAGE CHANGE)

Upper Snake River Basin

HENRYS FORK NR ASHTON, ID

- + HENRYS LAKE (STORAGE CHANGE)
- + ISLAND PARK RESV (STORAGE CHANGE)

HENRYS FORK NR REXBURG, ID

- + HENRYS LAKE (STORAGE CHANGE)
- + ISLAND PARK RESV (STORAGE CHANGE)
- + DIV FM HENRYS FK BTW ST. ANTHONY & REXBURG, ID + DIV FM HENRYS FK BTW ASHTON & ST. ANTHONY, ID
 - + GRASSY LAKE (STORAGE CHANGE)
- FALLS R NR SQUIRREL, ID
- + GRASSY LAKE (STORAGE CHANGE)

TETON R ABV SO LEIGH CK NR DRIGGS, ID . No Corrections TETON R NR ST. ANTHONY, ID

- · CROSS CUT CANAL
- + SUM OF DIVERSIONS ABV GAGE SNAKE R NR MORAN, WY
- SNAKE R ABV PALISADES RESV NR ALPINE, WY PACIFIC CK AT MORAN, WY - No Corrections + JACKSON LAKE (STORAGE CHANGE)
- GREYS R ABV PALISADES RESV, WY No Corrections SALT R ABV RESV NR ETNA, WY . No Corractions + JACKSON LAKE (STORAGE CHANGE) PALISADES RESERVOIR INFLOW, ID
- + SNAKE R NR IRWIN, ID
- + PALISADES RESV (STORAGE CHANGE)
 - + JACKSON LAKE (STORAGE CHANGE) SNAKE R NR HEISE, ID
- + PALISADES RESV (STORAGE CHANGE)
- + JACKSON LAKE (STORAGE CHANGE)
 - SNAKE R NR BLACKFOOT, ID
- + PALISADES RESV (STORAGE CHANGE) + JACKSON LAKE (STORAGE CHANGE)
- + DIV FM SNAKE R BTW HEISE AND SHELLY GAGES

+ DIV FM SNAKE R BTW SHELLY AND BLACKFT, ID

PORTNEUF R AT TOPAZ, ID - No Corractions

+ SNAKE R AT NEELEY, ID

AMERICAN FALLS RESERVOIR INFLOW, ID

- + AMERICAN FALLS (STORAGE CHANGE) + PALISADES RESV (STORAGE CHANGE)

 - + JACKSON LAKE (STORAGE CHANGE)

Southside Snake River Basins

- OAKLEY RESERVOIR INFLOW, ID
- + GOOSE CK ABV TRAPPER CK NR OAKLEY, ID
 - + TRAPPER CK NR OAKLEY, ID

SALMON FALLS CK NR SAN JACINTO, NV · No Corrections BRUNEAU R NR HOT SPRINGS, ID - No Corrections DWYHEE R NR GOLD CK, NV

- + WILDHORSE RESV (STORAGE CHANGE)
- + WILDHORSE RESV (STORAGE CHANGE) OWYHEE R NR ROME, OR
- + JORDAN VALLEY RESV (STORAGE CHANGE)
 - OWYHEE RESERVOIR INFLOW, OR
 - + OWYHEE R BLW OWYHEE DAM, OR
- + DIV TO NORTH AND SOUTH CANALS + OWYHEE RESV (STORAGE CHANGE)

SUCCOR CK NR JORDAN VALLEY, OR - No Corrections SNAKE R NR MURPHY, ID - No Corrections SNAKE R - KING HILL, ID - No Corrections SNAKE R AT WEISER, ID - No Corrections SNAKE R AT HELLS CANYON DAM, ID

+ BROWNLEE RESV (STORAGE CHANGE)

Bear River Basin

BEAR R NR RANDOLPH, UT

- + SULPHUR CK RESV (STORAGE CHANGE)
 - + CHAPMAN CANAL DIVERSION
- + WOODRUFF NARROWS RESV (STORAGE CHANGE) THOMAS FORK NR WY-ID STATELINE - No Corrections SMITHS FORK NR BORDER, WY - No Corrections
- SULPHUR CK RESV (STORAGE CHANGE)

BEAR R BLW STEWART DAM, ID

- CHAPMAN CANAL DIVERSION
- WOODRUFF NARROWS RESV (STORAGE CHANGE)
- TOTAL OF 12 CANALS
- WESTFORK CANAL
- + DINGLE INLET CANAL
- + RAINBOW INLET CANAL
- MONTPELIER CK NR MONTPELIER, ID
- + MONTPELIER CK RESV (STORAGE CHANGE) CUB R NR PRESTON, ID . No Corrections

DEAD + ACTIVE

ACTIVE

ACTIVE

ACTIVE

57.3 4.0 14210

4 00

1421 00

3 84

67 30

1.50 8

WOODRUFF NARROWS

WOODRUFF CREEK

BEAR RIVER BASIN

AON TPELIER CREEK

BEAR LAKE

serms include dead, inactive, active, and surcherge storage. The table below lists these volumes for each reservoir in this report, and defines the storage volumes that NRCS uses when reporting capacity and current reservoir storage. In most cases, NRCS reports usable storage, which includes active and DEAD + INACTIVE + ACTIVE DEAD + INACTIVE + ACTIVE DEAD + INACTIVE + ACTIVE RESERVOIR CAPACITY DEFINITIONS . Different agencies use verlous definitions when reporting reservoir capacity and contents. Reservoir storage ACTIVE + SURCHARGE NACTIVE + ACTIVE NACS FIGURES NCL UDE ACTIVE **ACTIVE** ACTIVE ACTIVE CAPACITY 1971.0 335.0 286.8 283.2 1400.0 80 5 182 6 715 1561.3 238.5 119.3 3459.0 703.2 161.9 464.2 191.5 30.0 135.2 15.2 847.0 348 7 1672.6 77.4 7150 1419.3 3451.0 = 169.1 44.4 90.4 SURCHARGE STORAGE 7.90 10.00 STORAGE 77 40 90.40 127.30 15 18 71 60 715 00 975 30 1791 00 335.00 1042 70 71.30 11.10 653 20 161.90 423 18 286 60 264.40 189 10 191.50 30 00 44.37 847.00 80.54 348 73 182 65 3451 00 225.00 2007.00 200.00 672.60 ACTIVE STORAGE NACTIVE 112.40 444.00 13.50 28.00 50.00 41.00 28.80 8.00 9.00 1452.00 0.24 155.50 STORAGE Jnknown Unknown 39 73 20.00 29.00 0.40 44,10 48 00 406 20 4.00 406 83 0.45 1.6 WEISER/BOISE/PAYETTE BASINS SOUTHSIDE SNAKE BASINS NOOD/LOST BASINS CLEARWATER BASIN JPPER SNAKE BASIN PANHANDLE REGION ANDERSON RANCH A MERICAN FALLS LATHEAD LAKE HUNGRY HORSE COEUR D'ALENE **NOXON RAPIDS** SAI MON FALLS nactive storage JACKSON LAKE YEND OREILLE AKE LOWELL **HENRYS LAKE BRASSY LAKE** ITTLE WOOD MANN CREEK ARROWROCK ISLAND PARK RESERVOIR PRIEST LAKE DEADWOOD **UCKY PEAK** DWORSHAK BLACKFOOT NILDHORSE PALISADES CASCADE **DWYHEE** MACKAY DAKLEY BASIN/ MAGIC RIBIE

Interpreting Streamflow Forecasts

Iroduction

Each month, five forecasts are issued for each forecast point and each forecast period. Unless otherwise specified, all streamflows are for streamflow volumes that would occur naturally without any upstream influences. Water users need to know what the different forecasts represent if they are to use the information correctly when making operational decisions. The following is an explanation of each of the forecasts.

Most Probable (60 Percent Chance of Exceeding) Forecast. This forecast is the best estimate of streamflow volume that can be produced given current conditions and based on the outcome of similar past situations. There is a 50 percent chance that the streamflow volume will exceed this forecast value. There is a 50 percent chance that the streamflow volume will be less than this forecast value.

The most probable forecast will rarely be exactly right, due to errors resulting from future weather conditions and the forecast equation itself. This does not mean that users should not use the most probable forecast: it means that they need to evaluate existing cirumstances and determine the amount of risk they are willing to take by accepting this forecast value.

To Decrease the Chance of Having Too Little Water

If users want to make sure there is enough water available for their operations, they might determine that a 50 percent chance of the streamflow volume being lower than the most probable forecast is too much risk to take. To reduce the risk of not having enough water available during the forecast period, users can base their operational decisions on one of the forecasts with a greater chance of being exceeded (or possibly some point in-between). These include:

70 Percent Chance of Exceeding Forecast. There is a 70 percent chance that the streamflow volume will exceed this forecast value. There is a 30 percent chance the streamflow volume will be

less than this forecast value.

90 Percent Chance of Exceeding Forecast. There is a 90 percent chance that the streamflow volume will exceed this forecast value. There is a 10 percent chance the streamflow volume will be

less than this forecast value.

To Decrease the Chance of Having Too Much Water

If users want to make sure they don't have too much water, they might determine that a 50 percent chance of the streamflow being higher than the most probable forecast is too much of a risk to take. To reduce the risk of having too much water available during the forecast period, users can base their operational decisions on one of the forecasts with a smaller chance of being exceeded. These include:

30 Percent Chance of Exceeding Forecast. There is a 30 percent chance that the streamflow volume will exceed this forecast value. There is a 70 percent chance the streamflow volume will be less than this forecast value.

10 Percent Chance of Exceeding Forecast. There is a 10 percent chance that the streamflow volume will exceed this forecast value. There is a 90 percent chance the streamflow volume will be less than this forecast value.

Using the forecasts - an example

Using the Most Probable Forecast. Using the example forecasts shown below, users can reasonably expect 36,000 acre-feet to flow past the gaging station on the Mary's River newa Deeth between March 1 and July 31.

Using the Higher Exceedance Forecasts. If users anticipate a somewhat drier trend in the future (monthly and seasonal weather outlooks are available from the National Weather Service every two weeks), or if they are operating at a level where an unexpected shortage of water could cause problems, they might want to plan on receiving only 20,000 acre-feet (from the 70 percent chance of exceeding forecast). In seven out of ten years with similar conditions, streamflow volumes will exceed the 20,000 acre-foot forecast.

If users anticipate extremely dry conditions for the remainder of the season, or If they detrmine the risk of using the 70 percent chance of exceeding forecast is too great, then they might plan on receiving only 5000 acre-feet (from the 90 percent chance of exceeding forecast). Nine out of ten years with similar conditions, streamflow volumes will exceed the 5000 acre-foot forecast.

Using the Lower Exceedance Forecasts. If users expect wetter future conditions, or If the chance that tive out of every ten years with similar conditions would produce streamflow volumes greater that 36,000 acre-feet was more than they would like to risk, they might plan on receiveing 52,000 acre-feet (from the 30 percent chance of exceeding forecast) to minimize potential flooding problems. Three out of ten years with similar conditions, streamflows will exceed the 52,000 acre-foot forecast.

In years when users expect extremely wet conditions for the remainder of the season and the threat of severe flooding and downstream damage exists, they might choose to use the 76,000 acre-foot (10 percent chance of exceeding) forecast for their water management operations. Streamflow volumes will exceed this level only one year out of ten.

		UPPER	HUMBOL	UPPER HUMBOLDT RIVER BASIN	BASIN			
FORECAST POINT	FORECAST	DRIER	ST IER	TREAMFLCFUTURE	STREAMFLOW FORECASTSFUTURE CONDITIONS	ASTS WET	TER	
	PERIOD	80% (1000AF)	90% 70% (1000AF) (1000AF)		50% (Most Probable) 000AF) (% AVG)	30% (1000AF)	10%	25 YR
MARY'S RIVER nr Deeth	MAR-JUL APR-JUL	5.0 8.0	20.0	3. 36	7.	52 45	76 67	47
LAMOILLE CREEK nr Lamoille	MAR-JUL APR-JUL	6.0	16.0	2 22	79 75	3 33	£ 1	£ 8
NR HUMBOLDT RIVER at Devils Gate	MAR-JUL	0.9	12.0	£	23	7.	121	29

For more information concerning streamflow forecasting ask your local NRCS field office for a copy of "A Field Office Guide for Inferpreting Streamflow Forecasts".

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NATURAL RESOURCES CONSERVATION SERVICE

In addition to basin outlook reports, a Water Supply Forecast for the Western United States is published by the Natural Resources Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Natural Resources Conservation Service, Water Climate Center, 101 SW Main Street, Suite 1600, Portland, OR 97204-3225.